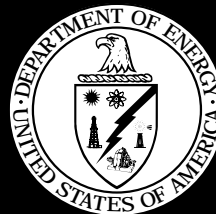


# The Standards

News on the DOE Technical Standards Program



## Forum

Volume 6 - Number 3 - December 1998



### A Call for A National Standards Strategy

*Industry, Standards, Government Leaders Call U.S. Standards Strategy Vital to U.S. Economic Growth, Global Competitiveness*—September 24, 1998, news release from the National Institute of Standards and Technology

Washington, D.C., September 24, 1998 - The U.S. economy will suffer unless American companies, standards-developing organizations and government agencies join together to realize a more coherent and effective standards strategy, participants at a U.S. "standards summit" agreed yesterday.

More than 300 representatives from U.S. companies, trade and professional associations involved with developing and implementing standards, and federal agencies took steps toward achieving that strategy in the first major U.S. conference addressing those needs. Held in Washington, D.C., as part of World Standards Day activities, the conference was co-sponsored by the Commerce Department's National Institute of Standards and Technology (NIST) and the American National Standards Institute (ANSI).

Commerce Deputy Secretary Robert L. Mallett told conference attendees, "Today, the United States is the world's most prolific exporter, strongest competitor and best innovator. Yet, we are jeopardizing our leadership position...by not paying full attention to the important details of international trade: measurements, standards and laboratory accreditation."

Mallett challenged the private sector to develop an effective approach under ANSI leadership "to level the international playing field for American businesses." He also stressed the need to strengthen technical assistance programs to advance international standards development and enhance U.S.-foreign technical cooperation. There was broad agreement about the urgency of the situation and the need to improve public-private sector cooperation on standards policy.

Dana Mead, chairman and chief executive officer of Tenneco and 1998 World Standards Day Chair, picked up on a common theme heard throughout the summit about the unfair advantage that many participants claimed were available to European standards. Mead warned participants, "If we can't bring down

(Continued on Page 13)

### Fourth Integrated Safety Management Lessons Learned Workshop



On October 20-22, 1998, the Fourth Integrated Safety Management Lessons Learned Workshop was held in New Orleans, Louisiana. The workshop was sponsored by the Office of Fossil Energy; the Strategic Petroleum Reserve Management Office; the Office of Environment, Safety and Health; and the Safety Management Implementation Team (SMIT). More than 400 individuals from the various DOE headquarters, field, and contractor organizations attended the workshop.

As most of you know, Integrated Safety Management (ISM) is a Department-wide initiative to systematically integrate safety into all levels of management and work practices in order to strengthen the protection of the public, the worker, and the environment. ISM is very much a "back-to-the-basics" initiative with a focus on accomplishing work safely rather than a focus on environment, safety, and health (ES&H) requirements and programs for their own sakes.

There were over 100 presentations given (in a series of parallel technical sessions) at the workshop. As you would expect, many of the presentations touched on situations involving the identification and application of appropriate technical standards and/or standardization methods. Example situations are described below.

1. One senior DOE manager noted that, in his walk-through activities related to site/facility work in progress, he focuses his questions to the technical staff and laborers on work requirements involving electrical maintenance, construction practices, crane safety, control of temporary equipment, lockouts/tagouts, work procedures, system start-up/turnover, readiness reviews, configuration management activities, work documentation, quality assurance requirements, "stop work" authority, and lessons learned use.
2. A film on enhanced work planning produced by the Idaho National Engineering and Environmental Laboratory (INEEL) noted management's commitment to "standardization" in this area.

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## a note from the Manager . . .

### DOE Technical Standards Program

In response to various "Recommendations" made to DOE by the Defense Nuclear Facilities Safety Board (DNFSB) over the past several years, DOE has committed to develop a number of technical standards. We have some advice for you if it is part of your responsibility to meet such a commitment.

One of the first things you should do is contact your organizational Technical Standards Manager (TSM). Your TSM can help you register the project with the TSP and establish a realistic schedule. He/she can even help put you in touch with DOE subject matter experts or an existing DOE topical committee that can help you! Don't delay—if the first time your TSM hears about a specific commitment to develop a standard is just before it is due to the DNFSB, then no matter how much the TSM helps you, it will be difficult to meet your commitment!

Remember, to process a DOE technical standard, you first develop a final draft and then notify DOE's TSMs of its availability for review. We then post it for review on the DOE TSP Home Page. The TSMs further distribute the draft to organizational subject matter experts.

A 60-day comment period is required for any directive or technical standard. Next, you consolidate and resolve comments. "Essential" comments are closed out with the interested Reviewing Activity. Experience has shown that any efforts to use "shortcuts" almost always result in *more* "essential" comments, requests for extensions, and multiple review cycles—thus the "shortcut" always takes longer than the normal process.

Once you complete comment resolution, you must prepare a final version of the document, get approval of your senior line manager (usually the DOE manager that funded the development effort), and provide a "camera-ready" copy for publishing to the TSP through your TSM. There are lots of little details regarding such matters as format, distribution, documentation, etc. that you need to address, so you really need to work closely with your TSM.

The processes for developing a DOE technical standard are available through the Internet on the DOE TSP Home Page at URL: <http://apollo.osti.gov/html/techstds/techstds.html>.

Once on the TSP Home Page, select (i.e., point and click), "Program Overview and Guidance." Next, select "Procedures" or "Style Guide" for specific information on how to develop a standard. You can also find out who your TSM is by selecting "News/Contacts" on the Home Page, then selecting the "TS Managers List." We may also be able to provide you with a hard copy of the TSP "Tool Kit" that contains the Style Guide, TSP Procedures, and diskettes with all the forms and formats we normally use.

Additionally, in conversations with DNFSB staff, they indicate that they have never asked anyone to work outside the DOE Directives System or TSP in developing standards. As a matter of fact, the TSP itself is, to a large degree, the result of a DOE response to a DNFSB Recommendation (91-1) to improve the Department's standards management practices! As such, in situations where the development and dissemination of needed technical standards is involved, it is up to you to get an early start with your TSM to help ensure your success in meeting DOE's commitments.

—Rick Serbu

## TSP Publications Support Moves to Headquarters



The Office of Nuclear Facility and Safety, EH-3, has requested that DOE's ES&H Technical Information Services (TIS), managed by the Office of Information Management, EH-72, assume responsibility for the publication (including printing, distribution, and electronic media support) of DOE technical standards and maintenance of the Technical Standards Program Internet site. This support will be transitioned from the Office of Scientific and Technical Information (OSTI) to TIS by the end of CY 1998. One recent change already apparent is the new colors for the newsletters. Of course, they still include the up-to-the-minute information that is relevant to the many customers and stakeholders of the TSP. The contributing editors and staff remain intact to address your comments/questions and process any address changes.

The Office of Nuclear and Facility Safety looks forward to this new partnership. Concurrently, the OSTI personnel are to be congratulated for a job well done in providing high quality, customer-oriented support to the TSP since 1992. Questions on this new support arrangement should be directed to Rick Serbu, TSP Manager, 301-903-2856, [Richard.Serbu@eh.doe.gov](mailto:Richard.Serbu@eh.doe.gov), or Rhonda Toms, TIS, 301-903-0088, [Rhonda.Toms@eh.doe.gov](mailto:Rhonda.Toms@eh.doe.gov).

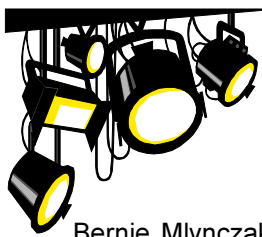
## Comments on the Role of the Federal Government in Environmental Technology Development



The Environmental Engineering Division of the ASME Council on Engineering recently convened a panel of experts—the Environmental Technology Panel—to examine the role of the Federal government in environmental technology development.

The panel issued a position statement on November 17, 1998, stating that "the current situation...is one in which government regulations, rather than the marketplace, often are the determining factor in the development and advancement of environmental technologies. A coherent strategy is therefore necessary to determine the appropriate roles for government and industry investments in environmental technology development." The statement includes recommendations and outlines a strategy for an appropriate government role and investment in environmental technologies. A full-text version of the statement is available on the Internet at: <http://www.asme.org/gric/98-24.html>.

## Technical Standards Manager Spotlight



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Bernie Mlynczak  
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Technical Standards Manager  
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• • • • •  
U.S. Department of Energy  
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Chicago Operations Office  
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Argonne, Illinois  
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Bernie Mlynczak is a physical scientist assigned to the Safety and Technical Services Group at DOE's Chicago Operations Office (CH). He is part of the Projects Team in this Group. Although his tenure as Chicago's Technical Standards Manager has been relatively short, Bernie has continued CH's tradition of providing capable and enthusiastic support to the DOE Technical Standards Program. He has recently been assigned other duties, including reviewing the disposition of high risk / dual use property for nonproliferation concerns and resolving close-out issues on several large project contracts.

Bernie earned his Bachelor's degree in Biology from the University of Missouri in 1978. He received his Master's of Business Administration degree from the same institution in 1986. Prior to joining the government, Bernie worked in private industry for several years in a variety of positions. For instance, he held positions as a quality control microbiologist and safety engineer with a subsidiary of McDonnell Douglas Corporation. In addition, he served as a biosafety specialist with Monsanto Company when this corporation entered the biotechnology field and there were many federal requirements for the manipulation of genetically engineered microorganisms. Bernie obtained his introduction into the complex world of federal regulation, compliance, and standards in private industry. He believes passionately that the worker and society have benefited greatly by the codification of regulations and standards in environment, safety, and health; industrial hygiene; good laboratory practices; and good manufacturing practices, to name just a few. He believes that "the good is there for man to do" if only he will do it.

One of the major reasons for obtaining a graduate degree in management was Bernie's desire to enter a career at the interface of science and management. His work experience convinced him that the non-technical management types don't understand and trust their technical colleagues and vice-versa. "In reality," Bernie told *The Standards Forum*, "in our increasingly complex world, both types of people need each other very much." After obtaining his graduate degree, Bernie entered federal service as a program analyst with NASA. After holding positions at both Langley Research Center and Goddard Space Flight Center, Bernie accepted a position with the Department of Energy in 1992. He worked on a variety of project management duties at the Advanced Photon Source until its completion in 1996, after which he was transferred to his current organization.

With respect to current standards activities, Bernie said, "There are a lot of changes in the way the we are doing business these days, the goal being to improve the economy and efficiency of the U.S. Government. The National Technology Transfer and Advancement Act of 1995, OMB Circular A-119,



**Technical standards provide a way to assure that 'the good is there for man to do' and provide management with a framework to assure that he does it."**

**— Bernie Mlynczak**

and other laws, such as the Government Performance and Results Act, make this effort abundantly clear. As a result, DOE has recently embarked upon a course of using performance-based incentives with its prime contractors." In this dynamic environment, Bernie believes that the need for good communication and understanding between our non-technical managers, contracting officials, and the technical staff needs to be better now than ever before.

Bernie views the Technical Standards Program as an excellent way of helping to bridge the gap between policy, requirements, guidance, and standards. "Specifically, technical standards, whether they are DOE or non-Government standards, provide specific techniques and methods for implementing DOE's requirements. Good standards can help to assure good requirements and vice-versa. This is especially true if technical standards are the foundation upon which the DOE bases its requirements hierarchy. Technical standards, if used properly, help to produce consistent results of high quality. This is especially important in the areas of worker protection and in environmental safety. Technical standards provide a way to assure that 'the good is there for man to do' and provide management with a framework to assure that he does it."

Bernie laments that there is never enough time for his extra curricular interests. He enjoys travel, especially to some of the world's more distant and isolated locations. He's been to such diverse locations as the Galapagos Islands, the Ecuadorian Rainforest, Australia's Outback, and Africa's Serengeti Plains. He is interested in the relationship of local cultures to their environment, especially how they are affected by the rapid development of the world's economies. He has dabbled in such pastimes as scuba diving, hiking, speleology, backpacking, sailing, canoeing, and mountaineering. He is an avid reader and is drawn to works on history, philosophy, exploration, religion, and ethics. His reading habits are greatly facilitated by the length and severity of the winters in Chicago. Recently, he has developed an interest in aviculture, and has joined several organizations dedicated to the captive propagation of non-endemic avian species. He believes that fishing should be a way of life, but alas, there is never enough time to adequately pursue this belief.

## Topical Committee Developments



Rick Serbu, DOE Technical Standards Program (TSP) Manager, recently made presentations on the benefits of a topical committee before the Plutonium Standards Group (DNFSB 94-1 Task Group) and the ASTM C26 Spent Fuels Subcommittee. Charles O'Dell, EM-66, 202-586-8672, has requested a charter writing kit for the Plutonium Working Group Topical Committee. This group will be undertaking a major rewrite of DOE-STD-3013-96, *Criteria for Preparing and Packaging Plutonium Metals and Oxides for Long-Term Storage*.

Other interim topical committees are completing the chartering process. This includes the Performance Based Management Special Interest Group (PBM-SIG) represented by Will Artley, Oak Ridge Institute for Science and Education (ORISE). ORISE is a TRADE SIG and has its home page hot-linked to the TSP Home Page. The other interim topical committee is the Explosive Safety Committee. Rick Serbu and Norm Schwartz made brief presentations on October 28, 1998, to this group to encourage their participation as a topical committee. Gerald E. Meyers, EH-53, 301-903-3190, has been the point of contact for this group since it received interim status as a topical committee in 1997. Robert W. Barber, Office Director for EH-53, also added his voice in support of topical committee participation.

Kenneth G. Murphy, EH-53, 301-903-6514, is the point of contact for a prospective topical committee entitled the Chemical Safety Interest Group. A draft charter has been reviewed by the TSP and is out for approval by the group's membership.

Robert M. Waters, EH-53, is working with the Behavioral Safety Committee to develop a topical committee charter. Bob is also involved in the formative stages of a second topical committee, the Human Factors Topical Committee. Contact Bob at 301-903-5755 if you are interested in either group.

The Metrology Topical Committee is holding its next meeting at DOE/NV on March 24-25, 1999. The U.S. Department of Defense is interested in participating with the topical committee. This may be the first of what the TSP hopes will be several instances of topical committee participation from outside the DOE. In metrology, the science of measurements (primarily standards and calibration), non-DOE membership should broaden the scope of the Committee and strengthen its technical focus and relevancy.

If you are a member of a DOE working group or technical group that represents a technical or functional interest and would like your organization to be recognized across the DOE complex as a TSP topical committee, contact M. Norman Schwartz,

301-903-2996, [Norm.Schwartz@eh.doe.gov](mailto:Norm.Schwartz@eh.doe.gov), or Richard Serbu, 301-903-2856, [Richard.Serbu@eh.doe.gov](mailto:Richard.Serbu@eh.doe.gov). You will have the opportunity to share ideas with like-minded scientists and engineers within the Department and get more involved in standards work.



## Quality Assurance (QA) Topical Committee Plays an Active Role in the TSP

The Quality and Safety Management Special Interest Group (QSM SIG) was the first of three Training Resources and Data Exchange special interest groups (TRADE SIGs) to become chartered as DOE Technical Standards Program Topical Committees. The other two are the Occurrence Reporting and Industrial Hygiene/Occupational Safety (OR SIG and IH/OS SIG, respectively).

The DOE Technical Standards Program Manager, Richard Serbu, signed the QSM SIG topical committee charter in June 1997. The charter requires the QA Topical Committee "to provide a forum for, and to facilitate the interaction between, DOE and DOE contractor personnel with a common interest in identifying and resolving standards-related issues for the DOE Technical Standards Program Office." The Committee's mission is "to develop, improve, and provide quality management materials and implementation information for the DOE community."

***"Having the (DOE Topical) Committee to consult on the impacts of changes in standards or of new standards gives me the broad perspective that no single individual could have...The Topical Committee also allows me to project a strong and authoritative voice for DOE that is essential to having an impact on the national/international standards consensus process."***

***— Bud Danielson, QSM SIG***

In FY97, the QA Topical Committee reviewed eleven standards or portions of standards. In FY98, they reviewed another nine, and the committee has already reviewed two this fiscal year. All of these national or international standards are important to their facilities' responsibilities for quality assurance.

The Committee also assists Gustave (Bud) Danielson, DOE/EH-31, with his responsibilities in standards committees and networks where he represents DOE. Bud reports that "Having the Committee to consult on the impacts of changes in standards or of new standards gives me the broad perspective that no single individual could have. Information and recommendations from the QA Topical Committee members have really been useful to me in these activities. The Topical Committee also allows me to project a strong and authoritative voice for DOE that is essential to having an impact on the national/international standards consensus process."

Margy Beckmeyer (Westinghouse Savannah River Company), Chairman of the QSM SIG Steering Committee, stating from a contractor's perspective, "the QA Topical Committee provides a mechanism for standards-related implementation issues to be identified, understood, and resolved early in the process. The broad representation of DOE and DOE contractor personnel on the Committee is a plus to understanding and possibly minimizing the impact of changes on the many businesses across the complex. The Committee is a very important tool for communicating what is happening in the standards world."

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Topical Committees (Continued from Page 4)

## New DOE Accreditation Committee Targets Issues & Resolutions at First Annual Meeting

By: Don Ragland, Sandia National Laboratories-Albuquerque (SNLA)



The first annual meeting of the DOE Topical Committee on Laboratory Accreditation (Committee) was held at NIST, Gaithersburg, Maryland on September 23-24, 1998. The Committee, whose general aim is to educate and enhance awareness of DOE laboratory accreditation issues, formed three working groups to address specific DOE accreditation issues that it identified at the meeting.

The "COMMUNICATIONS" Working Group (WG) has established as its immediate goal the formation of a DOE Internet site on Accreditation. The WG selected its chairperson, Rick Blancq (DOE/RL), to be Webmaster. Initially, the site will contain a Membership Roster and a matrix for Accreditation Points of Contact across the DOE complex. The WG plans to expand and refine the site over time.

The WG on "ACCREDITATION ISSUES WITHIN DOE" chose to focus the next year on developing a strategic plan for coordination of DOE accreditation issues. To that end, the WG, chaired by Ken Harrison (PNNL), plans to conduct a survey that will establish a baseline of all the accreditations that DOE facilities, laboratories, contractors, etc., must have in order to perform work within the DOE complex.

"INTERFACING WITH ACCREDITATION ACTIVITIES EXTERNAL TO DOE" is the drive of the third WG for the Committee. In its first thrust, the Group is developing a plan for interaction with the National Cooperation for Laboratory Accreditation (NACLA). Dick Pettit (SNLA) chairs the WG. Pettit is also the DOE representative to NACLA.

Sponsored by the Technical Standards Program Office, the Committee intends to institute a coordinated accreditation program for DOE by providing a network for sharing information and resources and encouraging high-quality, cost-effective accreditation services for DOE programs. Membership in this Committee is open to all DOE personnel and DOE contractors involved with accreditation.

For more information, interested persons should contact: Gary LaBruyere (INEEL), 208-526-5081, [xag@inel.gov](mailto:xag@inel.gov). This article is also available for viewing on the TSP Internet site: <http://apollo.OSTI.gov/html/techstds/genframe.html>.

## DOE Fire Safety Committee Meeting in New Orleans

By: Dennis Kubicki, Chair, Fire Protection Topical Committee (301-903-4794)



The Department of Energy Fire Safety Committee will convene its Fall Meeting in New Orleans on December 8 and 9, 1998. This will be a combined session with the DOE Fire Chief's Subcommittee and the "Savings Through Sharing"

Working Group. The purpose of the meeting is to exchange fire safety and emergency services technical information and to ascertain the need for Committee initiatives in 1999. This follows the issuance of the Accident Investigation Report on the recent fatality at the Idaho National Engineering and Environmental Laboratory in which there was a "Judgement of Need" to "consider" new guidance relating to the design, installation, testing and maintenance of carbon dioxide fire suppression systems. Additional topics include: the need for direction regarding the replacement of potentially defective sprinkler heads, radiation training for fire fighters, maintenance of lightning protection systems, safety requirements for medical personnel who respond with the fire department to emergencies (fire), water collection/containment questions, OSHA safety requirements for fire fighters, and other issues.

## Third Annual DOE Metrology Committee Meeting Coming in March 1999

By: Don Ragland, Sandia National Laboratories-Albuquerque (SNLA)



The third annual meeting of the DOE Metrology Committee (Committee) will be hosted by DOE/Nevada Operations at its new facility in Las Vegas, Nevada, on March 24-25, 1999.

During the 1998 meeting at PNNL, the Committee identified as its principal task for 1998/99 the recommendation to DOE that it adopt ISO Guide 25 and Z-540 as the minimum, common set of guidelines for DOE facilities. ISO Guide 25 forms the basis for the draft standard DIS 17025. At the request of the National Institute of Standards and Technology (NIST), the Committee reviewed DIS 17025, "General Requirements for the Competence of Testing and Calibration Laboratories," and forwarded its comments back to NIST for consideration. Jim Bowman (LMES) will report on that activity and the status of DIS 17025 at the meeting.

In May 1998, the Metrology Working Group (WG) on RESOURCES launched the Committee's Internet site, as part of the DOE Technical Standards Program Office Internet directory. The new site is a repository for DOE metrology information, including a DOE metrology committee membership database, a DOE Metrology Resources and Capabilities matrix, official minutes of Committee meetings, and more. The WG continues to update the site on a regular basis. Visitors to the site can register for the 1999 meeting at DOE/NV. [Point your browsers to <http://apollo.OSTI.gov/html/techstds/techstds.html>. Then click on "Topical Committees" under the main heading of "Technical Standards Program Overview."] For further information, Email Don Ragland, [dragla@sandia.gov](mailto:dragla@sandia.gov).

The COMMUNICATIONS WG, chaired by Ken Jensen (Allied Signal/FM&T), is charged with publishing and making public current DOE metrology information. Currently in draft stages are two white papers: "Outsourcing vs. In-House Calibration," and "Charge-back vs. Overhead Funding". At the 1999 meeting, the Committee plans to consider approving the final form of these two publications. For more information, Email [kjensen@kcp.com](mailto:kjensen@kcp.com).

(Continued on Page 6)

**Topical Committees** (Continued from Page 5)

In accordance with the Committee's ongoing efforts to provide a network for sharing information and resources, contact between the Committee and the Department of Defense metrology community has been made in the initial steps toward establishing direct lines of communication between the two similar organizations. This collaboration will be a topic at the 1999 Las Vegas meeting. Along those same lines, steps are being made to establish formal relations between the Committee and the DOE Nuclear Weapons Complex, also to be a topic at the Las Vegas meeting.

Attendance at the DOE/NV meeting on DOE Metrology is urged for anyone involved in taking measurements, collecting data, calibrating standards, and/or making decisions based on measurements or data. For further information about the meeting, contact Bob Wayland, 505-845-9771, [jrwayla@sandia.gov](mailto:jrwayla@sandia.gov). This article is also available for viewing on the TSP Internet site <http://apollo.OSTI.gov/html/techstds/genframe.html>.

**The Biota Dose Assessment Committee: Providing a Major Forum and Technical Resource for DOE**

By: Steve Domotor, Chair, Biota Dose Assessment Committee (202-586-0871; [Stephen.Domotor@eh.doe.gov](mailto:Stephen.Domotor@eh.doe.gov))

The Biota Dose Assessment Committee (BDAC) is providing a major forum for exchanging information on biota dose evaluation issues and approaches and is proving to be a valuable resource in the development of a new DOE technical standard, "A Graded Approach for Evaluating Radiation Doses to Aquatic and Terrestrial Biota," (Project Number ENVR-0011). The BDAC is one of the newest Topical Committees in the DOE Technical Standards Program and has gotten off to a quick start in 1998. The committee was organized in February and formally established in June through an approved Charter (obtainable through the BDAC Internet Page, <http://tis-nt.eh.doe.gov/oepa/bdac.html>). The Air, Water and Radiation Division (EH-412) of the Office of Environmental Policy and Assistance (EH-41) sponsors and chairs the BDAC. The BDAC brings together the expertise in health physics, radioecology, environmental monitoring, and risk assessment as a resource base for DOE on biota dose assessment. The committee has representation from universities, national laboratories, M&O contractors, and DOE managers from program and operations offices.

The BDAC is currently assisting DOE in the development of a cost-effective, easy-to-implement screening methodology as part of a graded approach for evaluating doses for comparison with DOE and internationally-recommended dose limits for biota and for conducting ecological assessments of radiological impact where they are needed. The BDAC is also providing a DOE focal point for obtaining technical assistance and exchanging information on biota dose assessment issues and

approaches within DOE and for keeping current on related standards activities within other Federal and international agencies.

The draft DOE technical standard is planned for distribution within BDAC for review and comment in December 1998. Once finalized, the technical standard will be available in electronic format—to include user friendly screening value tables, spreadsheets, and supporting dose parameter databases.

**Performance-Based Management Special Interest Group****In the Works: A Performance-Based Management Handbook**

By: Will Artley, Coordinator, Performance-Based Management Special Interest Group (PBM SIG), 901-373-7493, [artleyw@orau.gov](mailto:artleyw@orau.gov).

All high-performance organizations—whether public or private—are and must be interested in developing and deploying effective performance measurement and performance management systems, since it is only through such systems that they can remain high-performance organizations. When President Clinton signed the Government Performance and Results Act of 1993 (GPRA) into law, this commitment to continuous improvement was institutionalized for the executive branch of our government. Federal agencies were required to develop strategic plans for how they would deliver high-quality products and services to the American people. Under GPRA, strategic plans are the starting point for each federal agency to (1) establish top-level agency goals and objectives as well as annual program goals; (2) define how it intends to achieve those goals; and (3) demonstrate how it will measure agency and program performance in achieving those goals.

Implementing GPRA is and will be a difficult task. However, the Performance-Based Management Special Interest Group is working diligently to publish a useful resource to assist in effectively and efficiently implementing the Act. Appropriately titled, *The Performance-Based Management Handbook, A Six-Volume Compilation of Techniques and Tools for Implementing the Government Performance and Results Act of 1993* borrows from the performance measurement framework devised by the National Performance Review (NPR) and offers the following topical areas:

1. Establishing and Maintaining a Performance-Based Management Program
2. Establishing and Updating Performance Objectives and Measures
3. Establishing Accountability for Performance
4. Collecting Data to Assess Performance
5. Analyzing and Reviewing Performance Data
6. Utilizing Performance Information

Drafts of these volumes can be found on the PBM SIG home page (<http://www.orau.gov/pbm>). Final publication is expected for early CY 1999. A limited number of hard copies will be available.





# Standards *Actions*

## DOE Technical Standards Projects Initiated

The following DOE technical standard project was recently initiated. If you have any questions or are interested in participating in the development of this standard, please contact the persons listed below.

- *Guide to Good Practice for Establishing Authorized Limits for the Release of Waste Contaminated with Residual Radioactivity*, Project Number ENVR-0012; Henry P. Himpler, EM-37; 301-903-2079, FAX 301-903-7738, [Henry.Himpler@em.doe.gov](mailto:Henry.Himpler@em.doe.gov).

## DOE Technical Standards Recently Sent for Coordination

The appropriate Technical Standards Managers (TSMs) will provide selected reviewers with copies for comment. The full text of this document is available on the Technical Standards Program (TSP) Home Page at the following URL: <http://apollo.osti.gov/html/techstds/techstds.html>. If you wish to comment on this document, please notify your TSM.

- *Industrial Hygiene Practices*, OCSH-0001, (John Serocki, EM-37, 301-903-7999, FAX 301-903-7166 [John.Serocki@em.doe.gov](mailto:John.Serocki@em.doe.gov), and Terry Krietz, EH-51, 301-903-6456, FAX 301-903-2239, [Terry.Krietz@hq.doe.gov](mailto:Terry.Krietz@hq.doe.gov)), comments due January 31, 1999.

## DOE Documents Recently Published

**The following DOE technical standard has recently been published:**

- DOE-STD-3024-98, *Content of System Design Descriptions*, October 1998.

DOE employees and DOE contractors may obtain copies from the ES&H Technical Information Services; telephone 1-800-473-4375 or FAX 301-903-9823.

Subcontractors and the general public may obtain copies from the U.S. Department of Commerce, Technology Administration, National Technical Information Service, Springfield, Virginia 22161; telephone 1-800-553-6847 or FAX 703-321-8547.

Copies of DOE technical standards (i.e., DOE Standards, Specifications, Handbooks, and Technical Standards Lists) are also available on the TSP Internet Site at the following URL: <http://apollo.osti.gov/html/techstds/techstds.html>. The following document was recently added:

- DOE-STD-3024-98, *Content of System Design Descriptions*, October 1998.

### Technical Standards Program Document Status as of 11/30/98

In Conversion	In Preparation	Out for Comment	Published in Past 30 Days
4	45	26	1

**Total in process = 71**

## Non-Government Standards

### American National Standards Institute

The American National Standards Institute (ANSI) publishes coordination activities of non-Government standards (NGS) bi-weekly in *ANSI Standards Action*. Please note that distribution of *ANSI Standards Action* is normally made only to individual members of ANSI or in group mailings to site members of ANSI.

For information on site membership, ask your local ANSI contact. For information on individual or group ANSI membership, call Susan Bose at 212-642-4948, Email [sbose@ansi.org](mailto:sbose@ansi.org). For further information on distribution policies of ANSI publications, call the ANSI distribution manager at 212-642-4952.

Copies of *ANSI Standards Action* and ANSI-published documents may be obtained from ANSI, 11 West 42nd Street, New York, NY 10036 (212-642-4900, FAX 212-302-1286). Comments on listed draft standards may be submitted by contacting the standards developing organization for information.

The following listings are extracted from *ANSI Standards Action* and are representative of NGS development activities that may be relevant to DOE operations. Refer to *ANSI Standards Action* for a complete listing of changes and new publications, standards developing organizations, and additional information about submitting comments. Additional information on ANSI activities and available non-Government standards can be found on the ANSI Internet site (<http://www.ansi.org>) or through the National Standards System Network (<http://www.nssn.org>).

Standards Actions (Continued from Page 7)

**The following American National Standards are currently in coordination:** (comment due dates follow each entry)

- A10.32, *Personal Fall Protection Safety Requirements for Construction/Demolition Operations* (new standard); January 19, 1999.
- A10.34, *Protection of the Public on and Adjacent to Construction Sites* (new standard); January 19, 1999.
- A10.42, *Rigging Qualifications and Responsibilities in the Construction Industry* (new standard); January 19, 1999.
- ASHRAE Addenda 62g, *Ventilation for Acceptable Indoor Air Quality* (supplement to ANSI/ASHRAE 62-1989); January 5, 1999.
- ASTM D92, *Test Method for Flash and Fire Points by Cleveland Open Cup* (revision of ANSI/ASTM D92); January 5, 1999.
- ASTM D4418, *Receipt, Storage, and Handling of Gas Turbine, Practice for* (new standard); January 5, 1999.
- ASTM D4929, *Test Methods for Determination of Organic Chloride Content in Crude Oil* (new standard); January 5, 1999.
- ASTM D5372, *Guide for the Evaluation of Hydrocarbon Heat Transfer Fluids* (new standard); January 5, 1999.
- ASTM D6300, *Practice for Determination of Precision and Bias Data for Use in Test Methods for Petroleum Products and Lubricants* (new standard); January 5, 1999.
- ASTM E535, *Practice for Preparation of Fire-Test-Response Standards* (revision of ANSI/ASTM E1546-93); January 19, 1999.
- ASTM E1546, *Guide for Development of Fire Hazard Assessment Standards* (revision of ANSI/ASTM E1546-93); January 19, 1999.
- ASTM E1973, *Practice for the Collection of Surface Dust by Air Sampling Pump Vacuum Technique for Subsequent Lead Determination* (new standard); January 19, 1999.
- ASTM Z2784Z, *Practice for Ultrasonic Examination of Wrought Products* (new standard); January 19, 1999.
- ASTM Z6390Z, *Method for Screening Purposes for Measurement of Heat Release Based on a Conical Radiant Heater* (new standard); January 19, 1999.
- ASTM Z7239Z, *Practice for Total Quality Assurance in the Petroleum Products and Lubricants Testing Laboratories* (new standard); January 5, 1999.
- ASTM Z7349Z, *New Standard Practice for Determining Total Image Unsharpness in Radiology* (new standard); January 19, 1999.
- ASTM Z7524Z, *Terminology Relating to Biodegradability and Ecotoxicity of Lubricants and Lubricant Components* (new standard); January 5, 1999.
- ASTM Z7572Z, *Test Method for Evaporation Loss of Lubricating Oils by the Tga Noack Method* (new standard); January 19, 1999.
- AWS B5.5, *Specification for the Qualification of Welding Educators* (new standard); January 19, 1999.
- EIA SP-3659-B (if approved, to be published as ANSI/EIA 364-95), *Full Mating and Mating Stability Test Procedure for Circular Electrical Connectors* (new standard); January 19, 1999.
- IAS NGV 4.7, *Automatic High Pressure-Operated Valves for Natural Gas Dispensing Systems* (same as CSA 12.57) (new standard); January 19, 1999.
- SMACNA 001, *Seismic Restraint Manual: Guidelines for Mechanical Systems* (new standard); January 19, 1999.
- UL 514C, *Standard for Safety for Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers* (revision of ANSI/UL 514C-1998); January 19, 1999.
- UL 1425, *Standard for Safety for Cables for Non-Power-Limited Fire-Alarm Circuits* (new standard); January 19, 1999.
- UL 1449, *Standard for Safety for Transient Voltage Surge Suppressors* (new standard); January 5, 1999.
- UL 61496-2, *Standard for Safety for Electro-Sensitive Protective Equipment, Part 2: Particular Requirements for Equipment Using Active Opto-electronic Protective Devices* (new standard); January 5, 1999.
- Z21.18b, *Gas Appliance Pressure Regulators* (same as CGA 6.3b) (Supplement to ANSI Z21.18-1995); January 19, 1999.

**The following international standards are currently in coordination** (comment due dates follow each entry):

- 22B/118/FDIS, IEC 62040-2: *Semiconductor converters - Uninterruptible power systems (UPS) - Part 2: Electromagnetic compatibility (EMC) requirements* - December 15, 1998.
- 64/1039/FDIS, IEC 60364-5-523: *Electrical installations of buildings - Part 5: Selection and erection of electrical equipment - Section 523: Current-carrying capacities in wiring systems* - December 15, 1998.
- 89/320/FDIS, IEC 60707: *Flammability of solid non-metallic materials when exposed to flame sources - List of test methods* - December 15, 1998.
- ISO/DIS 8504-1, *Preparation of steel substrates before application of paints and related products - Surface preparation methods - Part 1: General Principles* - January 28, 1999.
- ISO/DIS 8529-2, *Radiation protection - Reference neutron radiations - Part 2: Calibration fundamentals related to the basic quantities characterizing the radiation field* - February 4, 1999.
- ISO/DIS 14146, *Radiation protection - Criteria for a periodic assessment of the enabled organizations for individual X and gamma dosimetry, and determination of the performance limits of dosimetry systems* - January 21, 1999.
- ISO/DIS 15547, *Petroleum and natural gas industries - Plate heat exchangers* - January 21, 1999.

(Continued on Page 9)

**Standards Actions** (Continued from Page 8)

- ISO/DIS 15758, *Thermal insulation of equipment in buildings - Calculation of water vapour diffusion - Cold pipe insulation* - January 14, 1999.
- ISO/DIS 16017-1, *Indoor, ambient and workplace air - Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography - Part 1: Pumped sampling* - January 21, 1999.
- prEN 1367-5, *Tests for thermal and weathering properties of aggregates - Part 5: Determination of aggregates - Part 5: Determination of resistance to thermal shock* - March 15, 1999.
- prEN 12464, *Lighting applications - Lighting of work places* - January 5, 1999.
- prEN 13371, *Cryogenic vessels - Couplings for cryogenic service* - March 1, 1999.
- prEN 60417-1:1998, *Graphical symbols for use on equipment - Part 1: Overview and application* (IEC 60417-1:1998) - February 2, 1999.
- prEN ISO 4126-2, *Safety devices for protection against excessive pressure - Part 2: Bursting disc safety devices* (ISO/DIS 4126-2:1998) - February 1, 1999.
- prEN ISO 10651-4, *Lung ventilators - Part 4: Particular requirements for operator-powered resuscitators* (ISO/DIS 10651-4:1998) - January 24, 1999.
- prEN ISO 14438, *Glass in building - Determination of energy balance value - Calculation method* (ISO/DIS 14438:1998) - January 17, 1999.
- prEN ISO 15758, *Thermal insulation of equipment in buildings - Calculation of water vapour diffusion - Cold pipe insulation* (ISO/DIS 15758:1998) - February 15, 1999.

**The following newly published international standards are available from ANSI:**

- ISO 140-4:1998, *Acoustics - Measurement of sound insulation in buildings and of building elements - Part 4: Field measurements of airborne sound insulation between rooms*.
- ISO 3253:1998, *Gas welding equipment - Hose connections for equipment for welding, cutting and allied processes*.
- ISO 4063:1998, *Welding and allied processes - Nomenclature of processes and reference numbers*.
- ISO 5667-14:1998, *Water quality - Sampling - Part 14: Guidance on quality assurance of environmental water sampling and handling*.
- ISO 9241-5:1998, *Ergonomic requirements for office work with visual display terminals (VDTs) - Part 5: Workstation layout and postural requirements*.
- ISO 11117:1998, *Gas cylinders - Valve protection caps and valve guards for industrial and medical gas cylinders - Design, construction and tests*.
- ISO 11661:1998, *Mobile cranes - Presentation of rated capacity charts*.

- ISO 13256-1:1998, *Water-source heat pumps - Testing and rating for performance - Part 1: Water-to-air and brine-to-air heat pumps*.
- ISO 13853:1998, *Safety of machinery - Safety distances to prevent danger zones being reached by the lower limbs*.
- ISO 13877:1998, *Soil quality - Determination of polynuclear aromatic hydrocarbons - Method using high-performance liquid chromatography*.
- ISO 13964:1998, *Air quality - Determination of ozone in ambient air - Ultraviolet photometric method*.
- ISO 13994:1998, *Clothing for protection against liquid chemicals - Determination of the resistance of protective clothing materials to penetration by liquids under pressure*.
- ISO/TR 4869-4:1998, *Acoustics - Hearing Protectors - Part 4: Measurement of effective sound pressure levels for level-dependent sound-restoration ear-muffs*.

**American Society for Testing and Materials**

Standards activities of the American Society for Testing and Materials (ASTM) are published monthly in *ASTM Standardization News*. Orders for subscriptions or single copies of *ASTM Standardization News* may be submitted to ASTM, Subscription Dept.-SN, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959. For information regarding ASTM membership, contact the Membership Services Department at 610-832-9691 (FAX 610-832-9667). ASTM publications may be ordered from the ASTM Customer Services Department at 610-832-9585 (FAX 610-832-9555). Comments on listed draft standards may be submitted by contacting the ASTM Standards Coordination Department at the above address. Questions may be addressed to the Technical Committee Operations Division at 610-832-9672 (FAX 610-832-9666). Additional information on ASTM activities is available on the ASTM Internet site (<http://www.astm.org>). The following listings are extracted from *ASTM Standardization News* and are representative of NGS development activities that may be relevant to DOE operations.

**The following ASTM standards are currently in coordination:** (the due date for all items is December 10, 1998).

- New Standard, *Practice for Ultrasonic Examination of Wrought Products* (Ref. Z2784Z).
- New Standard, *Specification for Manufacture of Reinforced Concrete Sewer, Storm Drain and Culvert Pipe for Direct Design [Metric]* (Ref. Z5140Z).
- New Standard, *Practice for Fabrication of the Neutron Radiographic Beam Purity Indicators* (Ref. Z5669Z).
- New Standard, *Guide for Resonant Ultrasound Spectroscopy for Defect Detection in Both Metallic and Non-Metallic Parts* (Ref. Z6814Z).
- New Standard, *Guide for Testing Industrial Protective Coatings* (Ref. Z6870Z).

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**Standards Actions** (Continued from Page 9)

- New Standard, *Test Method for Cold Filter Plugging Point of Diesel and Heating Fuels* (Ref. Z7236Z).
- New Standard, *Test Method for Determining the Slip Index of Painted Surfaces Using the Variable Incidence Tribometer* (Ref. Z7371Z).
- D 5847, *Practice for Writing Quality Control Specifications for Standard Test Methods for Water Analysis* (new standard).
- E 690-91, *Practice for In-Situ Electromagnetic (Eddy-Current) Examination of Nonmagnetic Heat Exchanger Tubes* (revised standard).

**The following newly published standards are available from ASTM:**

- E 673-97, *Terminology Relating to Surface Analysis* (revised standard).
- E 1184-98, *Practice for Electrothermal (Graphite Furnace) Atomic Absorption Analysis* (revised standard).

**American National Standards Projects Initiated**

The following is a list of proposed new American National Standards or revisions to existing American National Standards submitted to ANSI by accredited standards developers. DOE employees or contractors interested in participating in these activities should contact the appropriate standards developing organization. DOE-TSL-4 lists the DOE representatives on NGS committees. If no DOE representative is listed, contact the TSPO for information on participating in NGS activities.

**Air-Conditioning & Refrigeration Institute**

**Office:** 4301 North Fairfax Drive, Suite 425  
Arlington, VA 22203-1627

**FAX:** 703-524-9011

**Contact:** Stephen Sanders, [ssanders@ari.org](mailto:ssanders@ari.org)

- ARI 335P, *Direct Geoechange Heat Pumps* (new standard).

**ASTM**

**Office:** 100 Barr Harbor Drive  
West Conshohocken, PA 19428

**FAX:** 610-832-9666

**Contact:** Stephen Mawn, [smawn@astm.org](mailto:smawn@astm.org)

- ASTM Z7579Z, *Test Method for Measuring Puncture Resistance of Protective Clothing Materials* (new standard).

**American Welding Society (AWS)**

**Office:** 550 NW LeJeune Road  
Miami, FL 33126

**FAX:** 305-443-5951

**Contact:** Charles Fassinger, [chuck@aws.org](mailto:chuck@aws.org)

- AWS C5.1, *Recommended Practices for Plasma Arc Welding* (new standard).
- AWS C5.9, *Recommended Practices for Shielded Metal Arc Welding* (new standard).

**Nuclear Information and Records Management Association**

**Office:** 210 Fifth Avenue  
New York, NY 10010

**FAX:** 603-432-3024

**Contact:** Jane Hannum, [jnirma@nirma.mv.com](mailto:jnirma@nirma.mv.com)

- NIRMA/CMC - TG19, *Configuration Management for Nuclear Facilities* (new standard).

**Underwriters Laboratories, Inc.**

**Office:** 1655 Scott Boulevard  
Santa Clara, CA 95050

**FAX:** 408-556-6045

**Contact:** Linda Phinney-George, [georgel@ul.com](mailto:georgel@ul.com)

- UL 109, *Standard for Safety for Tube Fittings for Flammable and Combustible Fluids, Refrigeration Service, and Marine Use* (new standard).
- UL 268, *Standard for Safety for Smoke Detectors for Fire-Protective Signaling Systems* (revision of ANSI/UL 268-1988).

**Comments, Questions, and Addresses**

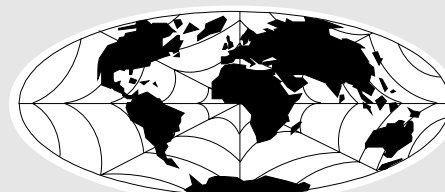
**Comments:** If you have any questions or comments, please contact Rick Serbu, EH-31, Manager, DOE Technical Standards Program Office (TSPO), 301-903-2856, FAX 301-903-6172, Email [Richard.Serbu@eh.doe.gov](mailto:Richard.Serbu@eh.doe.gov). If you have any questions or comments on DOE standards projects, please contact Don Spellman, Oak Ridge National Laboratory (ORNL), 423-574-7891, FAX 423-574-0382, Email [spellmandj@ornl.gov](mailto:spellmandj@ornl.gov).

**Addresses:** To update our distribution list, please contact Marty Marchbanks, ORNL, 423-241-3658, FAX 423-574-0382, Email [mmf@ornl.gov](mailto:mmf@ornl.gov).

**Technical Standards Activities:** The TSPO would like to be kept informed of the status of technical standards that are being prepared or coordinated for DOE. Please provide this information to the TSPO at 423-574-7886, Email [lj8@ornl.gov](mailto:lj8@ornl.gov).

**Be an early bird!**

**The Standards Forum and Standards Actions are a part of the Technical Standards Program (TSP) Home Page, which features lists of Technical Standards, lists of personnel involved in TSP and non-Government standards activities, hot links to other technical standards organizations, and much more!**



**You can catch us at:**

<http://apollo.osti.gov/html/techstds/techstds.html>

## MOST DOE COMMENTS ON ISO 17025 UPHELD BY ANSI REVIEW COMMITTEE

By: Don Ragland (Sandia National Laboratories-Albuquerque)



Most of the comments submitted by DOE to the ANSI committee responsible for reviewing the proposed international standard ISO 17025 ("General Requirements for the Competence of Testing and Calibration Laboratories") were upheld by that group. Consequently, they will become part of the official U.S. position on the current draft (DIS 17025) of the standard. The DOE comments were the result of a concerted review of DIS 17025 by the DOE Metrology Committee at the request of Rick Serbu, DOE Technical Standards Program Manager.

ISO (International Organization for Standardization) is in the process of drafting DIS 17025, which will replace ISO/IEC Guide 25: 1990. ISO had requested that ANSI put together an ad hoc committee to study DIS 17025 and express an official U.S. position. Most of the changes recommended by the ad hoc committee reflect those requirements from ISO 9001 and ISO 9002 that are relevant to the scope of laboratory services covered by the quality systems at laboratories.

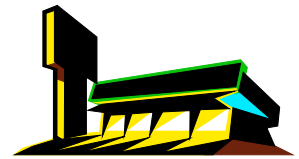
The makeup of the ad hoc committee reflects ANSI's attempt to garner opinions from a wide spectrum of U.S. Governmental and non-Governmental sources:

- Jim Bowman (Lockheed Martin Energy Systems), a Steering Committee member of the DOE Metrology Committee representing DOE on the ad hoc committee;
- Jim Cigler (NIST), Committee Chair and Chief of NVLAP (National Voluntary Laboratory Accreditation Program);
- Peter Unger, President of AALA (American Association of Laboratory Accreditation);
- Dan Harper, Chairman of the U.S. Technical Advisory Group for ISO Technical Committee (TC) 176;
- Keith Mowry, Underwriters Laboratories; and
- Lynne Neumann (Entela Corporation) a member of ISO TC 176 Working Group 10 and a member of the ad hoc writing group for the first draft of 17025.

Lynne Neumann and Jim Cigler will compose the final draft of the U.S. position on DIS 17025. Jim Bowman expects ISO 17025 to be issued by mid-1999. When issued, it will precipitate changes for the U.S. standard for calibration, ANSI/NCCL Z540-1, and for the laboratory accreditation systems.

For more information, you can contact Jim Bowman at 423-574-2558, [jbo@ornl.gov](mailto:jbo@ornl.gov).

## One-Stop-Shopping For Federal Agencies Seeking Standardization Solutions



By: Paul Orr, Underwriter Laboratories, Inc.

To facilitate implementation of the Office of Management and Budget (OMB) Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities", Underwriters Laboratories Inc. (UL), is offering assistance to all Federal government departments and agencies seeking voluntary consensus standards solutions.

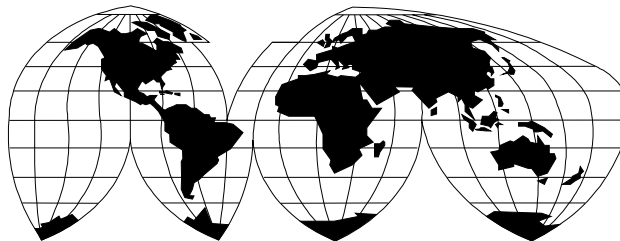
For those federal agencies who are not aware, UL is a private, not-for-profit organization which has been performing safety testing, product certification, and standards development and revision for over 104 years. We are a Nationally Recognized Test Laboratory (NRTL) offering global conformity assessment services. Our voluntary consensus standards support global trade through international harmonization and multinational harmonization (U.S., Canada, Mexico), and we are a leading U.S. registrar

for registration to the ISO 9000 series of quality assurance standards. In addition to incorporating technical and practical input from industry, Federal government agencies, users, authorities having jurisdiction, and others, UL standards are written by knowledgeable UL test engineers and standards engineers who conduct the product investigations and use the Standards on a daily basis.

UL will work together with government agencies and industry to customize a process to address specific considerations for the adoption of a UL Standard. UL will also assist those seeking a service package such as standards development, product certification, and follow-up surveillance of future production.

A recent example of UL's responsiveness to considerations of government and industry is in the development of the *Standard for Software in Programmable Components*, UL 1998. The first edition of UL 1998, titled the *Standard for Safety-Related Software* and published in 1994, was written to apply to products designed to use software in place of electro-mechanical controls to address safety-related functions. There were a number of industry groups and government agencies that were significantly involved in the review process for UL 1998, including groups interested in residential and industrial controls, information technology, avionics, and medical devices. While the first edition addressed software in general, the recently adopted second edition applies to non-networked

## The World of Standards



## NEWS BRIEFS

**News Briefs** (Continued from Page 11)

embedded microprocessor software whose failure could result in a risk of fire, electric shock or injury to persons. As a result of comments received during the UL review process, the second edition now includes a number of modifications, including the new title.

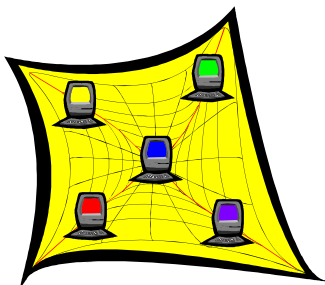
To help your agency meet its standardization implementation goals, UL offers three options for adopting a UL Standard:

- 1) The direct adoption of an existing UL Standard to replace an agency specification,
- 2) The addition of a supplement to an existing UL Standard, to include essential government requirements not contained in the UL standard, and
- 3) UL to work with your agency to develop a standard based on agency-specific needs.

To browse the list of UL Standards, see UL's Catalog of Standards or Product Index at **www.ul.com**. For additional information please contact: Paul Orr, Project Engineer, Standards Department, Underwriters Laboratories, Inc., 1285 Walt Whitman Road, Melville, NY 11747, 516-271-6200 Ext. 22596, FAX 516-439-6021, or **orrrp@ul.com**.

**Registrar Accreditation Board (RAB) Launches Internet Site**

News Release, Milwaukee, Wisconsin—The RAB has introduced an Internet site that provides visitors with wide ranging information on accreditation and certification activities for both the ISO 9000 and ISO 14001 fields. The site address is **www.rabnet.com**.



RAB's Internet site will provide a real service to business and industry. For firms just beginning their evaluation of registration to the ISO management systems standards, the site includes overview perspectives. For those searching for an accredited registrar, auditor training course provider, or a certified individual auditor, the searchable databases make it easy to locate a particular registrar or training course provider or to obtain an entire list of these service providers," commented Joseph Dunbeck, RAB CEO.

For anyone who is not quite sure what the difference is between accreditation, registration, and certification, RAB's Internet site has the complete answers. With separate areas devoted to Quality Management Systems (QMS) and Environmental Management Systems (EMS), the site contains several "Frequently Asked Questions" sections as well as a feedback mechanism for obtaining information on topics not detailed on the site.

RAB's Internet site also provides the latest news from the International Accreditation Forum (IAF) and International Auditor and Training Certification Association (IATCA) as well as current developments from the ANSI-RAB National Accreditation Program (NAP).

While all areas of the site are available to the public, RAB-certified auditors will especially benefit from the option to download RAB audit logs. Auditors and other site visitors can also access the latest issue of RAB's quarterly newsletter, *News & Notes*, as well as information on certification maintenance requirements, auditor's code of conduct, and continuing professional development requirements.

**DOE Takes Lead on International Environmental Standard**

New DOE 490, *General Environmental Protection Program*, transforms the basic approach to ensure environmental protection by incorporating a site-wide systems approach with international environmental standard ISO 14001. DOE 490 replaces the DOE 5400 environmental protection series.

The new Order has only six requirements—one of them is to adopt an International Organization for Standardization's (ISO) 14001 approach, the ISO Environmental Management System (EMS) Standard. This standard, which emphasizes the processes used to ensure cost-effective environmental protection,

1. identifies and implements applicable requirements,
2. monitors changes in applicable requirements,
3. analyzes the effect of new requirements, and
4. integrates change into each part of the operation.

Likewise, DOE 490 applies a systems approach to basic environmental management. It also requires development of environmental and EMS performance indicators to track progress toward DOE environmental and DOE-wide strategic goals. Under DOE EMS policy, an organization commits itself to continual improvement of its EMS. While ISO 14001 does not set specific performance goals, DOE 490 requires the establishment of and compliance with such goals. For details on DOE 490, contact Larry Stirling (EH-41) at 202-586-2147.

# The Standards

**Forum**

Editor ..... Marty Marchbanks

**Distribution:** If you would like to have your name added to (or removed from) the mailing list for this publication, or you need to make an address change, please notify Marty Marchbanks, Oak Ridge National Laboratory (ORNL), 423-241-3658; FAX: 423-574-0382; Email: **mmf@ornl.gov**.

**Comments:** If you have any questions or comments please contact Rick Serbu, EH-31, 301-903-2856; Email: **Richard.Serbu@eh.doe.gov**. If you have any questions or comments on DOE standards projects, please call Don Spellman, ORNL, 423-574-7891; Email: **spellmandj@ornl.gov**.

**Publication:** ORNL and DOE's ES&H Technical Information Services publish *The Standards Forum* quarterly for the DOE Technical Standards Program.

**A Call for A National Standards Strategy** (Continued from Page 1)  
trade barriers between the EU and the U.S.—two areas with so much in common—we cannot expect to do so in areas where cultural and economic differences are much greater, in countries like China, Japan and India.”

The animated discussion about the perceived European advantage involved the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC) and the International Telecommunications Union (ITU), the organizations widely viewed to be the “international” standards bodies.

Evangelos Vardakas, director of the Directorate General for Industry in the European Commission, told conference participants that the European standards system had served an important purpose: to unify the European market and to abolish barriers to trade among 18 European nations. Noting that the ISO and IEC could be more responsive, he said that the United States had a clear choice to make: either to work within ISO and IEC and try to improve the system, or to stay outside and compete with that system but forego the right to criticize them.

That invitation was deemed worth serious consideration by other participants who suggested that the time might be ripe for U.S. organizations to work with other countries in proposing significant changes in ISO and IEC procedures and requirements to the point of “reengineering” those organizations. According to Keith Termaat of Ford Motor Company, that could include giving two major European standards organizations (CEN/CENELEC) a single vote in ISO and IEC ballots rather than permitting individual countries to vote. The United States representative, ANSI, receives only a single vote. Changing the composition of the European membership would have a significant impact on the organizations’ dues structure, an issue that would have to be addressed.

An alternative approach for dealing with concerns about ISO, IEC and ITU was suggested by George Arnold, director of standards and intellectual property at Lucent Technologies, who advocated pursuing bilateral and regional standards alliances, while remaining active in the international organizations.

It was also suggested by Henry Line, vice president of Global Product Standards for AMP Incorporated, that a national standards strategy may not be needed because of the wide diversity of industry sectors. He added that the existing U.S. voluntary standards system currently works effectively for most industries. He emphasized that standards must be market-driven; lead by the private sector with government support; voluntary; all inclusive to ensure that small- and medium-sized businesses participate in the process; and flexible to include supplier declaration of conformity assessment.

Another key issue addressed involved alternative concepts for funding the work of standards developing organizations, which typically rely on the sale of final standards and the voluntary involvement of companies to support the actual standards writing process. The concept of Federal government support for broad-based standards needs—including training and education, export promotion activities, and facilitating online access

to information about standards and standard-setting activities—proved to be popular.

Providing government funding to support ANSI’s participation in international standards activities and replacing income lost if its standards are offered for use received generally positive reviews. ANSI President Sergio Mazza warned, however, that even with such support, “There is no free lunch. We need to be sure that those who benefit from standardization pay their way.”

NIST Director Ray Kammer told participants that if the Federal government were to provide greater support to standards developing organizations such as ANSI, congressional action and legislation would be desirable to ensure some reliability and continuity.

Among the other issues and major points addressed at the conference were:

- Organizations need to find ways to involve consumers more heavily in the standards development process.
- U.S. industry can eliminate a major competitive disadvantage and source of market confusion by increasing acceptance and use of the metric system.
- Government agency standards experts’ involvement in voluntary standards activities needs to be continued, if not increased.
- The 400 standards organizations in the United States need to speak with one voice—or at least fewer voices.

The summit also included speakers who reported on successes in developing standards approaches for particular sectors. One example of success involves an emerging technology, intelligent transportation systems. The U.S. Department of Transportation and U.S. companies have collaborated to build an infrastructure of standards to support crash avoidance systems, advanced traffic control, and other applications. As a result, “The United States now has a very strong national standards program in intelligent transportation technologies,” said Michael Schagrin, a standards manager with the department.

One sector that has had sustained success in its dealings with traditional international standards organizations is the U.S. construction machinery industry, according to Gerald Ritterbush, manager of standards and regulations at Caterpillar, Inc. Since 1968, industry representatives have participated actively in ISO, with administrative support from the Society of Automotive Engineers. “Essentially all of the critical standards contain U.S.A. technology,” said Ritterbush.

Conference co-sponsors at ANSI and NIST agreed to promptly consider another suggestion offered at the summit: to organize a similar session to address critical issues in “conformity assessment,” the testing and certification systems established for implementing standards.

For more information, contact: Daniel P. Stepanek/Ruth Zornm KCSA Worldwide, 212-896-1202/212-896-1255, or Michael Newman, NIST, 301-975-3025.

**Fourth ISM Lessons Learned Workshop** (Continued from Page 1)

3. An initiative with the Chemical Manufacturers Association to bring chemical safety “best practices” into DOE was discussed.
4. A contributing factor to the July 1998 fatality at INEEL involved conflicting fire protection “standards” (NFPA vs. OSHA). One presentation, in noting this conflict, expressed a belief that the institution (i.e., DOE) must raise conflicting requirements of this nature to the attention of the responsible technical organizations for resolution.
5. A presentation on measuring ISM effectiveness identified the need to “promote standardization where possible” for economies-of-scale savings in Department-wide ISM implementation.
6. Another presentation touted the ability of an ISM system in helping avoid the “production-over-safety” trap because of its “disciplined, reliable standards system.”

There were also copies of “rogue” technical standards (example: a 200+ page “source book” on worker involvement in feedback/improvement activities) and site-specific procedures on issues of Department-wide concern (enhanced work planning being the most common) available at the workshop.

What were some of the messages from this workshop that apply to the Technical Standards Program (TSP)? Some possible “lessons learned” are discussed below.

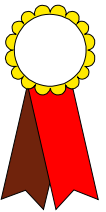
1. The TSP can only succeed when it operates as a service entity and not as a competing, stand-alone initiative. Our basic service function is to be DOE’s infrastructure to implement Public Law 104-113 and OMB Circular A-119 through the identification, development, application, and maintenance of technical standards (preferably voluntary consensus standards) relevant to Department operations. Another related service function (generally being covered by our network of topical committees) involves addressing standards and standardization needs that emerge from other Department-wide initiatives, such as ISM, enhanced work planning, lessons learned, etc. The bottom line is that the TSP must actively support ISM activities.
2. One speaker aptly noted that the existence of the “written word” (i.e., policy documents) was not sufficient to ensure ISM implementation. Another speaker commented that “(w)ithout training, you cannot communicate the intent of a program.” Certainly, this is a problem experienced by the TSP through the loss of funding for site-based training sessions and program workshops. In the absence of funding for training/workshops, the burden falls on our network of Technical Standards Managers and topical committees to convene the program’s intent to our site/facility customers and stakeholders.
3. Individuals interested in preparing new technical standards or acting to reaffirm/maintain existing technical standards need to understand and be able to communicate the “value-added” aspects of the documents. Efforts are underway within the Department to increase the scrutiny on all new DOE directives (including DOE technical standards). As such, in situations where the need for a technical standard is identified, every effort should be made to employ existing standards (voluntary consensus standards) to

meet the need. Expending resources to prepare technical standards of little or no value to Department operations diminishes the credibility of all parties involved.

Recently, the Secretary of Energy, in an October 1, 1998, memorandum, affirmed his personal commitment to the principles of Integrated Safety Management. The Secretary also announced that a Safety Management Leadership Forum will be convened in the first part of 1999. ISM is aggressively moving forward, and it is time for all (the TSP community included) to get on board.

For more information on Integrated Safety Management, please consult their Internet site (<http://tis-nt.eh.doe.gov/ism/>).

## ISO 9000 COMPLIANCE— CHANGES IN THE FUTURE



*This article was reproduced from The Standardization Newsletter, First Quarter Edition, October 1998. The article was produced from information submitted by Ira Epstein, President, Value Management Associates, and ISO Working Group Chair. Mr. Epstein can be reached at 703-768-5212 or by Email at: [iepstein@erols.com](mailto:iepstein@erols.com).*

### WHAT:

The content of the new ISO standards will change considerably more than was the case when the original 1987 standards were revised in 1994. The new standards will employ a process approach, be compatible with other management systems (i.e. ISO 14000), and include continuous improvement, fit stakeholders’ needs, and be user and customer friendly. The structure will change totally. The 20 elements of the 1994 ISO 9001 will be blended into major organizational processes.

Organizations registered to the 1994 version of ISO 9001 or 9002 will undoubtedly have to update their quality management systems to meet the new requirements. In 1994, most registrars gave their registered organizations 12 months to upgrade their 1987 quality management systems.

Revision of ISO 9001 will also likely have an impact on other standards based on ISO 9001. These would include standards such as QS 9000 (automotive industry), AS 9000 (aerospace industry), CP2 (Army), TL 9000 (telecommunications industry), good manufacturing practices (GMP), requirements for medical devices, etc. Organizations should consider the benefits of upgrading their quality management systems early.

The revised standards ISO 9000, ISO 9001 and ISO 9004 are expected to be published in the latter half of the year 2000. The following standards will be cancelled at that time: ISO 8402, ISO 9002, and ISO 9003. ISO 9001:2000 will allow tailoring to accommodate the needs of the organization and the fact that ISO 9002 and 9003 will no longer exist.

(Continued on Page 16)

## Upcoming Meetings

**January 25, 1999**

**Safety Analysis Working Group (SAWG) -  
Authorization Basis Workshop**

Albuquerque, New Mexico

The workshop is sponsored by the Safety Analysis Working Group (SAWG) of the DOE Energy Facility Contractors Group (EFCOG). For more information, contact Sam Savani at 803-502-9638. The EFCOG Internet home page is located at URL <http://www.efcog.org/>.

**January 26-28, 1999**

**DOE Data Analysis Forum**

St. Tropez Hotel - Las Vegas, Nevada

Sponsored by the DOE Office of Operating Experience Analysis and Feedback (DOE/EH-33).

The purpose of this forum is to share innovative techniques for collecting meaningful data, analyzing data to reveal useful insights, and presenting clear, concise results so that decision-makers can act and/or the public can be informed.

For more information, contact Richard Day, DOE/EH-33, 301-903-8371, [Richard.Day@eh.doe.gov](mailto:Richard.Day@eh.doe.gov), or Leesa Arowood, ORISE, 423-576-0595, [arowoodl@ornl.gov](mailto:arowoodl@ornl.gov), or visit the Internet site at <http://tis.eh.doe.gov/web/oeaf/workshop>.

**May 16-20, 1999**

**National Fire Protection Association World Fire Safety  
Congress & Exposition**

Baltimore Convention Center - Baltimore, Maryland

The Exposition has as its objective advancing the art and science of fire prevention and control. Mike McCurry, former press secretary and assistant to President Clinton will be the featured speaker.

For more information, call 617-984-7310 or check the NFPA Internet home page at URL <http://www.nfpa.org/>.

**May 17-21, 1999**

**4th IEEE International Software Engineering Standards  
Symposium (ISESS)**

Curitiba, Brazil

Theme: *Best Software Practices for the Internet Age*

ISESS '99 is sponsored by the Software Engineering Standards Committee (SESC) of the IEEE Computer Society. ISESS '99 takes a global view of the best software practices and the tools required for today's software challenges.

For more information, check the Internet at URL <http://www.isess99.org/index.html> or contact the Program Chair, Dr. Ray Milovanovic, Email: [rajko@csc.ti.com](mailto:rajko@csc.ti.com).



**June 6-10, 1999**

**1999 American Nuclear Society (ANS)  
Annual Meeting**

Boston, Massachusetts

Theme: *The Atom in the Next Millennium*

A call for papers has been issued; the deadline for submissions is January 8, 1999. Full details for submission are available on the Internet at URL <http://www.ans.org/meetings/>.

**October 4-7, 1999**

**Integrating Fire Research Into Practice**

Chicago, Illinois

Co-organized by: National Institute of Standards and Technology, Building and Fire Research Laboratory (NIST/BFRL) and the Society of Fire Protection Engineers (SFPE)

The focus is to provide a forum for recent advances in fire safety engineering applications through technical presentations, workshops, and case studies. The intent is to stimulate the interaction between the fire research and fire safety engineering communities. There will be a tour of Underwriter Laboratories Fire Test Facility on Friday, October 8, 1999.

For more information, call 310-718-2910 or check the SFPE home page at URL <http://www.mindspring.com/~sfpe1/>.

**November 14-19, 1999**

**1999 International Mechanical Engineering Congress  
and Exposition**

Opryland Hotel Convention Center - Nashville, Tennessee

This is the American Society of Mechanical Engineer's (ASME) Winter Annual Meeting. The highlight/industry topic is "Engineering Innovations for Increased Productivity".

For more information, see the ASME home page at URL <http://www.asme.org/>.

## 1999 Technical Standards Program Workshop

As you might guess from the way the title of this article is depicted, the chances for organizing and conducting a program workshop in FY 1999 are fading fast! Unfortunately, the FY99 funding level identified by DOE management for Technical Standards Program (TSP) support is not sufficient to maintain the basic program infrastructure and hold a workshop this year.

We are all disappointed by this situation. At the same time, we are proceeding to plan for another Federal Technical Standards Workshop (most likely in the Washington, D.C. area) sometime in the spring of 2000. Stay tuned for further details. If you have any comments or suggestions on subject matter to be addressed in future workshops, please contact Rick Serbu, EH-31, 301-903-2856, [Richard.Serbu@eh.doe.gov](mailto:Richard.Serbu@eh.doe.gov), or Don Williams, ORNL, 423-574-8710, [dw5@ornl.gov](mailto:dw5@ornl.gov).

## ISO 9000 Compliance (Continued from Page 14)

**WHEN:**

During June 29 to July 3, 1998, the ISO technical committee and working group met in Stockholm, Sweden, to work on the next revisions of the ISO 9001 and ISO 9004 standards. These two standards are referred to as the consistent pair. They reviewed and considered approximately 3000 individual comments, which were received on the third working draft of these standards. (Comments on working drafts are limited to members of the U.S. Technical Advisory Group that is supporting the U.S. representative on.)

The majority of comments from all the nations indicated positive support for the structure and content of the drafts. A number of comments were on the issue of "tailoring" of the future ISO 9001 standard. Several comments were on the need to harmonize the terms and definitions in the 9001 and 9004 drafts with those in the draft of ISO 9000, Concepts and Terminology.

After considering the comments, the committee produced drafts of the ISO 9001 and ISO 9004 standards. These were sent out to member nations at the end of July 1998 for a four-month review period, ending in November 1998. U.S. Technical Advisory Group members expected to see the drafts around mid-August. The following schedule is anticipated:

1. Circulation of first drafts of the future ISO 9001 and ISO 9004 standards in July 1998 for a four month review period for comment only.

2. Circulation of second drafts for a five-month review period for comment and a formal vote in the beginning of 1999.
3. Circulation of the Draft International Standards in the first half of 1999.
4. Circulation of the Final Draft International Standards in the second half of 1999.
5. Publication of the new ISO Standards in the second half of 2000.

The working group plans to meet in January 1999 to consider the comments received against the first drafts and prepare the second drafts for ballot. The ISO technical committee will next meet in September 1999, when the ballot of the second drafts has been concluded and the ballot results are known.

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